Executive Summary

How Do We Ensure a Professional Education Workforce?

By
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Few educational issues have received more attention in recent times than the problem of ensuring that our nation=s elementary and secondary classrooms are all staffed with competent, qualified teachers. This concern is neither unique nor surprising. Elementary and secondary schooling are mandatory in the U.S. and it is into the care of teachers that children are legally placed for a significant portion of their lives. The quality of teachers of teaching is undoubtedly among the most important factors shaping the learning and growth of students and essential to the ability of school systems to meet their goals. Moreover, the largest single component of the cost of education is teacher compensation. Especially since the publication two decades ago of the seminal *Nation at Risk* report, a seemingly endless stream of studies, commissions and national reports have targeted the inability of schools to adequately staff classrooms with qualified teachers (hereafter referred to as school staffing problems) as one of the central problems facing our educational system. Such critics have blamed these problems for a myriad of societal ills -- the erosion of American economic competitiveness and productivity; the decline in student academic achievement; teenage pregnancy; juvenile delinquency and crime; the coarsening of our everyday discourse and culture; a decline in morals; gender and racial discrimination, and on and on.

As a result, in recent years reformers at the federal, state and local levels have pushed a whole host of initiatives and programs seeking to upgrade the quantity and quality of teachers. Among these are: increased teacher training and retraining requirements; teacher recruitment initiatives; teacher licensing examinations; performance standards; more rigorous teacher evaluation, merit pay programs and, most recently, state and national accountability mechanisms. The ANo Child Left Behind Act@ passed in winter 2002, provides extensive federal funding for such initiatives. This legislation set a new and unprecedented goalCto ensure that the nation=s public elementary and secondary students are all taught by highly qualified teachers.

Although ensuring that classrooms are all staffed with quality teachers is an important issue in our schools, it is also, however, among the least understood. This misunderstanding centers on the sources of the problem - the reasons behind inadequacies in the quantity and quality of teachers in schools – and this lack of understanding has undermined the success of reform efforts. Underlying much of the criticism and reforms are a series of assumptions and claims as to the sources of the problems plaguing the teaching occupation. In this paper I focus on three of these.

The first is that severe teacher shortages are confronting our elementary and secondary schools and our traditional teacher preparation sources are simply not producing sufficient numbers of teachers to meet the demand. At the root of this school staffing crisis, according to this view, are two converging large-scale demographic trends -- increasing student enrollments and increasing teacher attrition due to a “graying”

teaching force. The resulting shortfalls of teachers, the argument continues, are forcing many school systems to resort to lowering standards to fill teaching openings, inevitably resulting in high levels of underqualified teachers.

The second is that the teaching force is inadequately trained and prepared. In this view, the pre-service preparation of teachers in college or university training programs, and state certification standards, all too often lack adequate rigor, breadth and depth, especially in academic and subject-matter coursework, resulting in high levels of underqualified teachers.

The third and final claim I will examine has to do with the control and accountability of the teaching force once on the job. Schools, this view claims, are far too loose, too disorganized and lack appropriate control, especially in regard to their primary activity -- the work of teachers with children and youth. Teachers are not held accountable and simply do what they want behind the closed door of their classrooms. The predictable result, this view holds, is low quality performance on the part of teachers.

These three claims are, of course, not the only explanations given for the problem of ensuring all classrooms are staffed with adequately qualified teachers. Nor are these views universally believed—indeed each is the subject of much contention -- and proponents of one may be opponents of another. But all are prominent views, all are part of the conventional wisdom as to what ails teaching and all have had an impact on reform and policy.

The argument of this paper is, however, that each is largely incorrect. Over the past decade and a half I have done extensive research to examine these claims. The best data to understand these issues come from the nationally representative Schools and Staffing Survey (SASS) conducted by the National Center for Education Statistics (NCES), the statistical arm of the U.S. Department of Education. Begun in the late 1980s, this is the largest and most comprehensive data source available on teachers and the staffing of schools. Indeed, it was originally created because of a dearth of information on these very problems and issues. From my analyses of these, and other data, I have concluded that each of the above three views involves a wrong diagnosis and a wrong prescription. I have also concluded that fully understanding problems of teacher quality and quantity requires examining the character of the teaching occupation and the organizational contexts in which teachers work. In the sections of the paper I review each of the above three views and explain why I believe each provides an inaccurate explanation of the problems plaguing the teaching occupation. I close by offering an alternative perspective to explain the problems undermining the quality and quantity of teachers and teaching.

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1 This paper was prepared for the South Carolina Education Oversight Committee.

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Severe Teacher Shortages

The first explanation for staffing problems in American schools is teacher shortages. In this view, the problem is that the supply of new teachers is insufficient to keep up with the demand. The root of this gap, it is widely believed, has been a dramatic increase in the demand for new teachers primarily resulting from two converging demographic trends—increasing student enrollments and increasing teacher retirements due to a “graying” teaching force. Shortfalls of teachers, this argument continues, have meant that many school systems have not

been able to find qualified candidates to fill their openings, inevitably resulting in the hiring of underqualified teachers, ultimately lowering school performance.

The prevailing policy response to these school staffing problems has been to attempt to increase the supply of teachers through a wide range of recruitment initiatives. Alternative certification programs allow college graduates to postpone formal education training, obtain an emergency teaching certificate, and begin teaching immediately. Peace Corps-like programs, such as Teach for America, seek to lure the "best and brightest" into understaffed schools. There are career-change programs, such as the federally funded "Troops-to-Teachers" program, which aim to entice professionals to become teachers. Some school districts have instituted recruiting teaching candidates from other countries. Financial incentives, such as signing bonuses, student loan forgiveness, housing assistance, and tuition reimbursement have all been used to aid recruitment (Hirsch, Koppich & Knapp 2001).

Over the past few years I have undertaken a series of analyses of the national SASS data to examine what is behind the teacher shortage. Below I'll summarize the results of this research (the data and discussion are drawn from Ingersoll 2001 and 2003b). From these analyses, I have concluded that the above efforts will, alone, not solve the problem schools have staffing classrooms with qualified teachers

The data show that the conventional wisdom on teacher shortages is partly correct. Consistent with shortage predictions, the data show that the demand for teachers has increased over the past two decades. Since the mid-1980s student enrollments have increased, teacher retirements have also increased, most schools have had job openings for teachers, and the size of the elementary and secondary teaching workforce has increased. Most important, the data tell us that substantial numbers of schools have experienced difficulties finding qualified candidates to fill their teaching position openings.

After that the data and conventional wisdom begin to diverge. The SASS data show that the demand for new teachers, and subsequent staffing difficulties confronting schools, are not

primarily due to student enrollment or teacher retirement increases, as widely believed. Most of the demand for teachers and hiring is simply to replace teachers who recently departed from their teaching jobs, and most of this teacher turnover has little to do with a “graying workforce.”

The Revolving Door

The data tell us that large numbers of teachers exit their schools each year. I have found that, as an occupation, teaching has higher turnover rates than some higher-status professions (such as professors and scientific professionals), about the same as other female semi-professions (such as nurses) and less turnover than some lower-status, lower-skill occupations (such as clerical workers). But, teaching is also a relatively large occupation. Teachers represent 4 percent of the entire civilian workforce. There are, for example, over twice as many elementary and secondary teachers as there are registered nurses, and there are five times as many teachers as there are either lawyers or professors. The sheer size of the teaching force, combined with its levels of annual turnover, mean that there are large numbers of teachers in some kind of job transition each year. For example, the data show that over the course of the 1999–2000 school year, well over a million teachers—almost a third of this large workforce—moved into, between, or out of schools. The data also show that the rate of teacher turnover in South Carolina is slightly higher than the national average. The image that these data suggest is one of a “revolving door.” This revolving door is a major, but unheralded factor, behind the difficulties many schools have ensuring that their classrooms are staffed with qualified teachers.

Of course, not all teacher turnover is negative. Some degree of employee turnover is normal and beneficial in any workplace. Too little turnover of employees is tied to stagnancy in organizations; effective organizations usually both promote and benefit from a limited degree of turnover by eliminating low-caliber performers and bringing in “new blood” to facilitate innovation. But, a "revolving door" is costly. In the corporate sector it has long been recognized that high employee turnover means substantial recruitment and training costs and is both the

cause and effect of productivity problems (e.g., Price 1977, 1989; Mobley 1982; Hom & Griffeth, 1995). In contrast to the corporate sector, however, there has been very little attention paid to the impact of employee turnover in education. One notable exception was a recent attempt to quantify the costs of teacher turnover in Texas. This study concluded that teacher turnover costs the state hundreds of millions of dollars each year (Texas Center for Educational Research 2000).

Some of the costs and consequences of employee turnover are more easily measured than others. One type of cost that is less easily quantified concerns the negative consequences of high turnover for organizational performance in work sites, like schools, requiring extensive interaction among participants. Much research has shown that the good school, like the good family, is characterized by a sense of belongingness, continuity, and community (e.g., Durkheim, 1925/1961; Waller, 1932; Parsons, 1959; Grant, 1988; Coleman & Hoffer, 1987; Kirst 1989). Turnover can also exact a toll on long-term school improvement efforts. The capacity of schools to carry out successful reform depends on the continuing presence of sufficient numbers of staff committed to the change (Fullan 1991; Smylie & Wenzel, 2003). Hence, from the perspective of those managing schools and districts, turnover of teachers from schools is of concern not simply because it may be an indicator of sites of so-called shortages, but because of its relationship to school cohesion and, in turn, performance.

The data also show that the revolving door varies greatly among different kinds of teachers. Teaching is an occupation that loses large numbers of its new members very early in their careers—long before the retirement years. A number of studies have found that after just five years, between 40 and 50 percent of all beginning teachers have left teaching altogether (Murnane et al. 1991; Huling-Austin 1990; Hafner and Owings 1991; Ingersoll 2003b). A number of studies have also found that the “best and brightest” among new teachers—those with higher test scores on the SAT and the National Teacher Exam—are the most likely to leave (e.g., Weaver 1983; Murnane et al. 1991; Schlecty & Vance 1981; Henke et al. 2000).

Moreover, the SASS data also show that the revolving door also varies greatly among different kinds of schools. For instance, high-poverty public schools have far higher teacher turnover rates than do more affluent schools. Urban public schools have more turnover than do suburban and rural public schools.

These data raise two important questions: why is there so much teacher turnover and why are these rates so dramatically different between schools?

Contrary to conventional wisdom, the SASS data show that retirement accounts for only a small part—about one-eighth—of the total departures. Far more significant are two other reasons for teacher turnover—job dissatisfaction and the desire to pursue a better job inside or outside of the education field. Together, these two reasons are the most prominent source of turnover and account for almost half of all departures each year.

Of those who leave because of job dissatisfaction, most link their turnover to several key factors: low salaries, lack of support from the school administrators, lack of student motivation, student discipline problems, and lack of teacher influence over school decision-making.

What then can we conclude from the data about the validity of the conventional wisdom on the teacher shortage and its prescription? In short, the data tell us that the root of the problem is not shortages, in the sense of too few teachers being produced, rather the root of the problem is largely turnover -- too many teachers departing prior to retirement. Hence, the solution is not recruitment, but retention. In plain terms, recruiting thousands of new candidates into teaching will not solve the teacher crisis if 40 to 50 percent of these new recruits leave the occupation in a few short years, as the data tell us they do. The image that comes to mind is that of a bucket rapidly losing water because there are holes in the bottom. Pouring more water into the bucket will not be the answer if the holes are not first patched.

What is to be Done?

How do we plug the holes in the bottom of the bucket? Teachers themselves were asked for their ideas by the SASS survey. One strategy suggested by departed teachers to aid

retention is increasing salaries, which are, not surprisingly, strongly linked to teacher turnover rates. But, salaries are not the only issue, which is important from a policy perspective because increasing overall salaries is expensive, given the sheer size of the occupation.

Reduction of student discipline problems is a second factor frequently suggested by departed teachers. Statistical analysis of the data also document that this factor is strongly tied to the rates of teacher turnover; again, not surprisingly, schools with more student misbehavior problems have more teacher turnover (Ingersoll 2001). But, the data also tell us that, regardless of the background and poverty levels of the student population, schools vary dramatically in their degree of student misbehavior.

One of the factors tied to both student discipline and teacher turnover is how much decisionmaking influence teachers themselves have over school policies that affect their jobs, especially those concerned with student behavioral rules and sanctions. In a separate statistical analysis of data from SASS I have found that, on average, teachers have little say in many of the key decisions that are concerned with and affect their work, but schools where teachers are allowed more input into issues, such as student discipline in particular, have less conflict between staff and students and less teacher turnover (Ingersoll 2003a).

Another factor is the degree of support provided by schools to beginning teachers, usually referred to as induction. In a statistical analysis of the national data, we explored the impact of induction, mentoring and support programs on the turnover of new teachers. After controlling for the background characteristics of teachers and schools, we found a strong link between participation by beginning teachers in various induction activities and their likelihood of moving or leaving after their first year on the job (Smith and Ingersoll 2004). The data showed that the rate of turnover of first year, newly hired, inexperienced teachers, who did not participate in any induction and mentoring programs was a stunning 41 percent. In contrast, after controlling for the background characteristics of teachers and schools, the turnover rate of beginning teachers who received what we labeled as “some” induction which included four

components (had a helpful mentor from their same field; had regular or supportive communication with their principal, other administrators, or department chair; had common planning time or regularly scheduled collaboration with other teachers in their subject area; and participated in a seminar for beginning teachers) was 27 percent. Twenty-six percent of beginning teachers received this "package" of four components. Finally, a very small number (less than 1 percent of beginning teachers) experienced what we labeled as a "full" induction experience that included the above four components, plus three more: participated in an external network of teachers; had a reduced number of course preparations and was assigned an aide. Participation in these activities, collectively, had a very large and statistically significant impact – the rate of departure at the end of their first year for those getting this package was less than half of those who participated in no induction activities.

Of course, nothing in the data suggests that plugging holes in the bucket will be easy. But, the data do make clear that schools are not simply victims of inexorable societal demographic trends, and there is a significant role for the management and organization of schools in both the genesis of, and the solution to, school staffing problems. Improving the workplace conditions in our schools, as discussed above, would contribute to lower rates of teacher turnover, which in turn would slow down the revolving door, help ensure that every classroom is staffed with qualified teachers, and ultimately increase the performance of schools.

Too Many Underqualified Teachers

A second prominent explanation of school staffing problems focuses on the qualifications of prospective teachers. In this view, a major source of low-quality teaching is inadequate pre-employment preparation and teacher-certification standards. In response, reformers in many states have pushed tougher certification requirements and more rigorous coursework requirements for teaching candidates. However, like many similarly worthwhile

reforms, these efforts alone will also not solve the problem because they do not address some key causes.

One of the least recognized of these causes is the practice of out-of-field teaching - teachers being assigned to teach subjects which do not match their training or education. This is a crucial issue because highly qualified teachers may actually become highly unqualified if they are assigned to teach subjects for which they have little training or education. Until recently, however, there has been little recognition of this problem.

In analyses of the SASS data, summarized below, I have found that out-of-field teaching is a chronic and widespread problem (the data and discussion below are drawn from Ingersoll 1999 and 2004). The data show, for example, that about one third of all secondary (grades 7th-12th) mathematics classes are taught by teachers who do not have either an undergraduate or graduate major or a minor in math, or related disciplines such as physics, statistics, engineering or math education. Almost one quarter of all secondary school English classes are taught by teachers who have neither a major nor minor in English, or related disciplines, such as literature, communications, speech, journalism, English education or reading education. The situation is even worse within such broad fields as science and social studies. Teachers in these departments are routinely required to teach any of a wide array of subjects outside of their discipline, but still within the larger field. As a result, over half of all secondary school students enrolled in physical science classes (chemistry, physics, earth science, or space science) are taught by teachers who do not have either a major or a minor in any of these physical sciences. Moreover, over half of all secondary school history students in this country are taught by teachers with neither a major nor a minor in history. The actual numbers of students affected are not trivial. For English, math and history, several million secondary school students a year in each discipline are taught by teachers without a major or minor in the field. But, out-of-field teaching also greatly varies across states. The data show that South Carolina has slightly lower rates and less out-of-field teaching than many states.

Out-of-field teaching also greatly varies across schools, teachers, and classrooms. For instance, recently hired teachers are more often assigned to teach subjects out of their field of training, than are more experienced teachers. Low-income public schools have higher levels of out-of-field teaching than do schools in more affluent communities. Small schools have higher levels of out-of-field teaching. There are also differences within schools. Lower-achieving classes are more often taught by teachers without a major or minor in the field than are higher-achieving classes. Junior high level classes are also more likely to be taught by out-of-field teachers than are senior high classes. The data also indicate that beginning teachers are more likely than veteran teachers to be given out-of-field assignments

The data clearly indicate that out-of-field teaching is widespread. Some of it takes place in well over half of all secondary schools in the U.S. in any given year - both rural and urban schools and both affluent and low-income schools. Each year over one fifth of the public 7-12th grade teaching force does some out-of-field teaching. No matter how it is defined, the data show that levels of out-of-field teaching are alarming. I found, for example, that similarly high numbers of teachers do not have teaching certificates in their assigned fields. Indeed, when I upgraded the definition of a qualified teacher, for instance, to include only those who held *both* a college major and a teaching certificate in the field – the standard preferred by the No Child Left Behind Act -- the amount of out-of-field teaching substantially increased. Moreover, out-of-field teaching does not appear to be going away; I found that levels of out-of-field teaching have changed little over the past decade.

The crucial question, and the source of great misunderstanding, is why so many teachers are teaching subjects for which they have little background.

The Sources of Out-of-Field Teaching

Typically, policy-makers, commentators and researchers have assumed two related explanations for the continuing problem of out-of-field teaching. One involves the adequacy of

teacher qualifications; the other involves the adequacy of teacher supply. The first blames teacher preparation programs or state certification standards (e.g., Darling-Hammond 1999; American Council on Education 1999; Committee for Economic Development, 1996). One subset of this view argues that the problem can be remedied by requiring prospective teachers to complete a “real” undergraduate major in an academic discipline.

It certainly may be correct that some teacher preparation programs and teacher certification standards suffer from shortcomings, but these problems do not explain the practice of out-of-field teaching. The SASS data indicate that most teachers have completed basic college education and teacher training. Ninety-nine percent of public school teachers hold at least a Bachelor's degree and almost half hold a Masters= degree or higher. Moreover, in the 1999-2000 school year about 92 percent of public school teachers held a regular or full teaching certificate. Another 4 percent held only a temporary, emergency or provisional certificate. About 4 percent of public school teachers held no teaching certificate of any type.

These latter data appear to conflict with conventional wisdom. In recent years, much attention has been focused on the plight of school districts, especially those serving low-income, urban communities, that have been forced to hire significant numbers of uncertified teachers to fill their teaching vacancies. The national data suggest, however, that the numbers of teachers without a full certificate actually represent only a small proportion of the k-12 public teaching force. In a workforce of almost 3,000,000, about 125,000 teachers have only a less-than-full certificate and another 126,000 teachers have no certificate at all.

This main point, however, is that the view that assumes that out-of-field teaching is due to teacher training deficits confounds and confuses two different sources of the problem of underqualified teaching; it mistakes teacher preservice education with teacher inservice assignment. The data show that those teaching out of field are typically fully qualified veterans with an average of 14 years of teaching experience who have been assigned to teach part of their day in fields that do not match their qualifications. At the secondary level, these

misassignments typically involve one or two classes out of a normal daily schedule of five classes.

Why then is there so much misassignment? The second explanation of the problem of out-of-field teaching offers an answer – teacher shortages. This view holds that shortfalls in the number of available teachers have led many school systems to resort to assigning teachers to teach out of their fields (see, e.g., National Commission on Teaching and America's Future 1996, 1997).

School staffing difficulties clearly are a factor in the degree of misassignment, but the data show, however, there are two problems with the shortage explanation for out-of-field teaching. First, it cannot explain the high levels of out-of-field teaching that the data indicate exist in fields, such as English and social studies, that have long been known to have surpluses. Second, the data also indicate that about half of all misassigned teachers in any given year were employed in schools that reported no difficulties finding qualified candidates for their job openings that year.

The implications of these misdiagnoses are important for reform. The efforts by many states to recruit new teachers, to enhance their training, to enact more stringent certification standards, and to increase the use of testing for teaching candidates, while worthwhile, will not eliminate out-of-field teaching assignments and, hence, alone will not solve the problem of underqualified teaching in our nation's classrooms. In short, bringing in thousands of new candidates and mandating more rigorous coursework and certification requirements will help little if large numbers of such teachers, once on the job, continue to be assigned to teach subjects other than those for which they were educated or certified.

Human Resource Management

Rather than deficits in the qualifications and quantity of teachers, the data point in another direction. In a series of statistical analyses designed to explore the sources of out-of-field teaching, I have found that way schools are organized and teachers are managed accounts

for as much of the problem of out-of-field teaching as do inadequacies in the supply of teachers. For example I have found that factors such as the quality of principal leadership, average class sizes, the character of the oversight of school hiring practices provided by the larger district, and the strategies districts and schools use for teacher recruitment and hiring are all significantly related to the amount of out-of-field teaching in schools (Ingersoll 2004).

The data show that teacher staffing decisions have traditionally followed a top-down command model; school principals make such decisions and teachers typically have little say over which courses they are assigned to teach. These administrators are faced with resolving the tension between the many expectations and demands placed on schools by state and federal governments and the limited time and resources provided to them. School managers are charged with the often difficult task of providing an increasingly broad array of programs and courses with limited resources, limited time, a limited budget, and a limited teaching staff (Delany 1991). Principals' staffing decisions are constrained by numerous factors, such as teacher employment contracts, that among other things stipulate that in a typical secondary school, full-time teaching staff must be assigned to teach five classes per day. But, within those constraints, principals have an unusual degree of discretion in these decisions. There is little regulation of how teachers are employed and utilized once on the job. Teacher employment regulations are weak or rarely enforced and, finally, most states routinely allow local school administrators to bypass even the limited requirements that do exist (Robinson 1985; Education Week 2000). In this context, principals may find that assigning teachers to teach out of their fields is often more convenient, less expensive and less time consuming than the alternatives.

For example, rather than find and hire a new part-time science teacher to teach two sections of a newly state-mandated science curriculum, a principal may find it more convenient to assign a couple of English and social studies teachers to each "cover" a section in science. If a teacher suddenly leaves in the middle of a semester, a principal may find it faster and cheaper to hire a readily available, but not fully qualified, substitute teacher, rather than conduct

a formal search for a new teacher. When faced with the choice between hiring a fully-qualified candidate for an English position or hiring a lesser qualified candidate who is also willing to coach a major varsity sport, a principal may find it more convenient to do the latter. When faced with a tough choice between hiring an unqualified candidate for a science teacher position or doubling the class size of one of the fully qualified science teachers in the school, a principal might opt for the former choice B resulting in a smaller class, but taught by a lesser qualified teacher. If a full-time music teacher is under contract, but student enrollment is sufficient to fill only three music classes, the principal may find it both necessary and cost effective in a given semester to assign the music teacher to teach two classes in English, in addition to the three classes in music, in order to employ the teacher for a regular full-time complement of five classes per semester. If a school has 3 full-time social studies teachers, but needs to offer the equivalent of 3 and 2/5ths full-time positions, and also has 4 full-time English teachers, but needs to offer the equivalent of 3 and 3/5ths full-time positions, one solution would be to assign one of the English teachers to teach 3 English courses and 2 social studies courses.

All of these managerial choices to misassign teachers may save time and money for the school, and ultimately for the taxpayer, but they are not cost free. They are one of the largest sources of underqualified teachers in schools and soon to be forbidden under *No Child Left Behind Act.*

What is to be Done?

The *No Child Left Behind Act* has mandated that all classrooms in core academic subjects are to be taught by teachers who are qualified in the subject taught. To meet the new legislation's goal, states will need to help districts and schools must reconsider how schools are managed and how teachers are utilized *once on the job*. If assigning teachers to teach out of field has been a prevalent administrative practice for decades because it is more efficient and less expensive than the alternatives, then its elimination will not be easy. Moreover, meeting the new standards for highly qualified teachers will be more difficult in some settings than in

others. For example, rural school districts tend to have smaller secondary schools with a smaller faculty, and as a result, teachers in these schools are more often required to teach multiple subjects regardless of their backgrounds.

State policymakers could consider:

- prohibiting out-of-field assignments for new teachers;
- offering incentives for districts and schools to eliminate out-of-field teaching and imposing consequences for those that do not;
- helping hard-to-staff schools improve teacher retention rates;
- encouraging districts and schools to rethink how staffing decisions are made and use models of decisionmaking that give teachers input into what subjects and courses they are assigned to teach;
- encouraging flexible staffing models and creating incentives for schools and districts to generate creative solutions at the local level, such as:
    - allowing schools to employ itinerant teachers with preparation in a specialty not needed full time in any one school, which could include the employment of retired teachers; or
    - facilitating the development and use of distance learning technology to provide rural and hard-to-staff schools with access to teachers with preparation in a specialty area but based in another geographical area;
- offering mentoring from veteran teachers or financial assistance for additional coursework to teachers who are assigned to teach subjects for which they are not qualified;

A Lack of Workplace Control and Accountability

A third and final explanation often given for the problem of teacher quality focuses on the management of teachers and schools. This view holds that schools are highly disorganized and lack appropriate control, especially in regard to their primary activity -- the work of teachers with children and youth. These critics argue that school systems are marked by low standards, a lack of coherence and control, poor management, and little effort to ensure accountability. The predictable result, they hold, is poor performance on the part of teachers and students. In short, this viewpoint finds schools to be the epitome of inefficient and ineffective bureaucracy (see, Tyler 1988; Conley 1991).

For many of those who subscribe to this view, the obvious antidote to the ills of the education system is to increase the centralized control of schools and to seek to hold teachers more accountable. In short, their objective has been to "tighten the ship" in one manner or another: increased teacher training and retraining requirements; standardized curricula and instructional programs; teacher licensing examinations; performance standards; more school and teacher evaluation, merit pay programs and state and national education goals, standards and testing (see, e.g., Callahan 1962; Finn et al. 1999; Elmore 1999).

However, distinguishing the degree and character of accountability and control in schools, as in any organization, depends upon where and how one looks. I found in an extensive project including analyses of data from a number of sources, including SASS that this “schools-are-too-loose” perspective has overlooked some of the most important purposes of schools, and has underestimated some of the most important sources and forms of organizational control and accountability in schools (the data and discussion below are drawn from Ingersoll 2003a).

In the first place, how one defines the job of teaching is important. When it comes to assessing how centralized or decentralized schools are and examining how much input and

autonomy teachers do or don't have, most researchers assume, reasonably enough, that classroom academic instruction is the primary goal and activity of schools and teachers and the most important place to look for evidence. Analysts typically focus on who chooses textbooks, who decides classroom instructional techniques and how much say teachers have over the determination of the curriculum. Moreover, when it comes to evaluating the organization of schooling, most analysts look at the effects of school characteristics on student academic achievement test scores. This approach makes sense, but it also misses a very important point.

Schools are not simply formal organizational entities engineered to deliver academic instruction and schools do not simply teach children reading, writing and arithmetic. Schools are also social institutions; they are akin to small societies whose purposes are in important ways like those of another social institution -- the family. Schools are one of the major mechanisms for the socialization of children and youth. This is so fundamental and so obvious it is, understandably enough, easily forgotten and taken for granted by researchers and policymakers.

In contrast, numerous surveys have found that behavioral and social issues, such as student discipline, lack of respect for teachers and improper behavior in classrooms have consistently been among the most important educational concerns of the public for decades. The public overwhelmingly feels an important goal of elementary and secondary schools is and should be to shape conduct, develop character and impart values and an important output is, in plain terms, well behaved children and youth. In short, teaching “good behavior” is a large part of the job of elementary and secondary teachers -- something new teachers quickly learn once employed at schools. To fully understand control in schools it is necessary to examine the control of these social aspects of the work of teachers in schools.

Assessments of organizational accountability and control are also highly dependent how one examines them. In school research, analysts often focus on the more direct, visible and

obvious mechanisms of control, accountability and influence -- such as rules and regulations, "sticks and carrots." It is important to recognize, however, that control and accountability can be exerted in a wide array of different ways in schools, as in other workplaces. Organizational analysts have shown that the most effective mechanisms by which employees are controlled and held accountable are often embedded in the day-to-day organization of the work itself and, hence, can be taken for granted and invisible to both insiders and outsiders alike (e.g., Perrow 1986; Burawoy 1979; Braverman 1975).

Who Controls Teachers' Work?

Historically, in the U.S. the control of elementary and secondary schooling developed in an unusual manner. In contrast to most European nations, public schooling in this country was originally begun on a highly democratized, localized basis. The resulting legacy is a current system of some 15,000 individual public school districts, governed by local school boards of citizens, each with legal responsibility for the administration and operation of publicly funded, universal, mandatory, elementary and secondary schooling. Local school districts in the U.S. are clearly no longer the autonomous bodies they once were. Nevertheless, the best international data available indicate that, despite these changes, schooling in the U.S. remains a relatively local affair in comparison to other nations.

While the education system in the U.S. is relatively decentralized, schools themselves are not. Most public and private secondary schools are highly centralized internally. The SASS data show that while school principals and school governing boards often have substantial control over many key decisions in schools, teachers usually do not. As a result, teaching is an occupation beset by tension and imbalance between expectations and resources, responsibilities and powers. On the one hand, the work of teaching -- helping prepare, train and rear the next generation of children -- is both important and complex. But on the other hand, those that are entrusted with the training of this next generation are not entrusted with much control over many of the key decisions concerned with their work. Perhaps not surprisingly, this

is particularly true for those crucial and controversial activities that are most fundamentally social. The most highly controlled, most highly consequential, and most overlooked aspects of schools are the socializing work that teachers do with youngsters.

In my research I spent considerable time examining by what means and mechanisms, if any, administrators are able to exert control over the work of teachers and attempt to establish accountability in schools. I found that in schools, as in most organizations, there are large numbers of rules, policies, regulations, employee job descriptions and standard operating procedures designed to direct and control the work of teachers. I also found that school administrators have numerous means, both formal and informal, by which they are able to supervise, discern and evaluate if teachers are complying with the rules and policies. In addition, I found that school administrators, contrary to conventional wisdom, do have numerous mechanisms, both formal and informal, to discipline or sanction those teachers who have not complied with the rules or have not performed adequately. A close look at schools reveals that administrators have a great deal of control over key resources and decisions crucial to the work of teachers and these provide a range of direct and indirect levers B Asticks and carrots@ B to exert accountability.

I also found that rules, regulations, supervision and sanctions were not the only, nor perhaps the most effective, means of controlling the work of teachers. Teachers are also controlled in less visible and less direct ways. Schools are an odd mix of bureaucratic and non-bureaucratic characteristics. Some of these other means of control are built into the formal structure of schools and the way the work of teachers is organized. Others are embedded in the workplace culture, the informal organization, of schools. Although these mechanisms are less direct and obvious than formal rules and regulations, they are no less real in their impact on what employees actually teachers do. Indeed, in some ways the pervasiveness of these other kinds of controls make it less necessary for school administrators to implement and require formal regulations and elaborate mechanisms of accountability. In some case, higher-order

decisions, over which teachers have little influence, set the parameters for lower-order decisions delegated to teachers in their classrooms. In some cases, the use of relatively crude and direct levers is not necessary, because, by definition, little of consequence is actually delegated to teachers.

The Teacher in the Middle

These less obvious controls are reflected in the role of teachers in schools. Teachers are the men or women in the middle. Teachers are not the workers who do the work themselves, nor are teachers part of the management of schools. A useful analogy is that of supervisors or foremen caught between the contradictory demands and needs of their superordinates -- school administrators -- and their subordinates -- students. Teachers are in charge of, and responsible for, the workers B their students. While teachers are delegated limited input into crucial decisions concerned with the management of schools and into crucial decisions concerned with their work, teachers are delegated a great deal of responsibility for the implementation of these decisions. Like other middlemen and middlewomen, teachers usually work alone and may have much latitude in seeing that their students carry out the tasks assigned to them. This responsibility and latitude can easily be mistaken for autonomy, especially in regard to tasks within classrooms. A close look at the organization of the teaching job shows, however, that while it involves the delegation of much responsibility, it involves little real power.

A little recognized, but telling indicator of this mixed role of responsibility and accountability is the widespread practice among teachers of spending their own money on classroom materials they feel they needed to do an adequate job with their students. Teachers often find, for a variety of reasons, that their school does not, or will not, provide the curriculum materials, stationary and supplies they deem necessary. As the SASS data indicate, teachers have little access to, or control over, school discretionary funds. These monies must be requested through administrative channels, a sometimes frustrating and unsuccessful

experience. A national survey of public school teachers conducted in 1990 by the Carnegie Foundation for the Advancement of Teaching found that teachers spent an average of about $250 of their own money per semester (or about $500 per year) for classroom materials and supplies they felt they needed to meet the needs of their students. Only 4 percent of the teaching force reported spending none of their own money for such supplies that year. Similarly, the 2000-01 Survey on the Status of the American Public School Teacher, conducted by the National Education Association, found that public school teachers spent, on average, about $443 of their own money that year for curriculum materials and classroom supplies. Only 3 percent reported spending none of their own money that year for such materials. Notably, this altruism was not merely a matter of youthful idealism; the data show that older teachers spent more of their own money than did younger teachers.

These data and indicators suggest a remarkable responsibility and accountability on the part of individuals, in the face of a remarkable lack of responsibility or accountability on the part of the organizations that employ them. These nationally representative data suggest that in 2000, a public teaching force numbering almost three million donated a total of well over one billion dollars of educational materials to their schools! This kind of teacher subsidization of the school system received unprecedented recognition in federal legislation, proposed by the Bush administration in 2001, to provide tax deductions to teachers for their out-of-pocket expenditures for classroom materials.

Teacher financial subsidization of public schools is all the more notable because teaching is a relatively low-paying occupation. The SASS data indicate that the average normal starting salary for a public teacher in the 1999-2000 school year was about $26,000 and the average highest salary possible on the scale was less than $50,000. The salaries of new college graduates who become teachers have long been consistently and considerably below those of new college graduates who choose most other occupations (Ingersoll 2000). For instance, the average salary (one year after graduation) for college graduates who become

teachers is typically almost 50 percent less than the average starting salary of their classmates who take computer science jobs. Moreover, this disparity remains throughout the career span. Comparing total yearly income, teachers earn less than those in many other occupations and far less than most traditional professionals. For instance, data from a national survey show that the average annual earnings of teachers are about one fifth the average annual earnings of physicians, one third that of lawyers and are just over half of the earnings of college and university professors (Ingersoll 2000). Using these salary data, it is possible to make a crude calculation of an equivalent level of altruistic service ethic for these other occupations. The lower $443 figure reported in the 2000-01 NEA survey represented about 1 percent of the average public school teacher salary that year. Thus, a rough equivalent of average out-of-pocket expenditures for the purchase of materials necessary to serve their clients would come to: about $550 per year on the part of professors; about $820 per year for lawyers; and about $1400 per year for doctors.

From the outside, this workplace ethos of individual responsibility and accountability in schools may appear to involve a substantial degree of autonomy and discretion on the part of teachers. Although the structure of some schools may isolate and overextend them, teachers do appear to have a wide latitude of choice in how to respond to and cope with the manner in which their work is organized. However, it is important to distinguish between the delegation of responsibility and the delegation of power. The delegation of responsibility is not a form of employee empowerment, but indeed may be the opposite.

Hence, the schools-are-too-loose perspective and many of the accountability reforms to come out of it commonly suffer from several problems. The first involves the accuracy of their diagnosis. The data show that the high degree of centralization in schools and the lack of teacher control, rather then the opposite, is often the source of problems in how well schools function. As a result, these kinds of top-down accountability reforms may divert attention from the organizational sources of some school problems.

Second, accountability reforms are sometimes unfair. For instance, proponents of top-down accountability reforms often overlook the unusual character of the teaching workforce. It is common among these policy makers and reformers to question and criticize the caliber and quality of teachers. A litany of such critics have told us again and again that teachers lack sufficient accountability, engagement and commitment. But, the data suggest that teachers have an unusual degree of public-service orientation and commitment, compared to others. Unrecognized and unappreciated by these critics is the extent to which the teaching workforce is a source of human, social, and even, financial capital in schools.

Third, for the above reasons accountability reforms often don't work. Top-down reforms draw attention to an important set of needs -- accountability on the part of those doing the work. But these kinds of reforms sometimes overlook another equally important set of needs -- for autonomy and for the good will of those doing the work. Too much organizational control may deny teachers the very control and flexibility they need to do the job effectively and undermine the motivation of those doing the job. A high degree of organizational control may squander a valuable human resource -- the unusual degree of commitment of those who enter the teaching occupation. Having little say in the terms, processes and outcomes of their work may undermine the ability of teachers to feel they are doing worthwhile work -- the very reason many of them came into the occupation in the first place-- and may end up contributing to the high rates of turnover among teachers. As a result, such reforms may not only fail to solve the problems they seek to address by offering a wrong prescription, but they may also end up making things worse. If top-down policies hold teachers accountable for activities they do not control, they may decrease the very thing they seek to increase -- improvements in teacher performance.

What is to be Done?

Accountability and power must go hand in hand, and increases in one must be accompanied by increases in the other. Imbalances between the two can result in problems for

both the employee and for the organization. Delegating power without commensurate responsibility is irresponsible and can even be dangerous and harmful. That is, giving teachers more power alone is not the answer. Likewise, accountability without commensurate power is unfair and can also be harmful. It does not make sense to hold somebody accountable for something they do not control, nor does it make sense to give someone control over something for which they are not held accountable. One essential element of such reform is the need to address the distinction, mentioned above, between power and participation. Decentralization reforms often lead to the creation of governance entities, such as committees, which provide input into school curricular, budgeting, hiring and other similar school decisions. Organizational researchers have long noted that if these organizational decentralization entities are to be successful they must have more than an advisory role; they must have actual decision-making power. The capacity to provide advice concerning school decisions is important, but not a sufficient substitute for the capacity to have power over decisions. Indeed, if such programs are simply "window dressing," they may not only fail to generate the engagement of members -- their objective -- but provoke cynicism, disengagement, and conflict. The history of school decentralization reform is marked by numerous examples of school committees that have little actual power to make or implement changes. The lesson is clear: if reform is to be effective, actual decision-making power must be shared.

Related to this is one of the central findings of my research -- that the effects of decentralization and empowerment reforms depend upon the task or issue involved. School restructuring and decentralization efforts often focus on expanding teacher input into either instructional activities, such as curricular innovation, or into administrative activities, such as teacher hiring and budget allocation. In contrast, reforms less often focus on a similar expansion of teacher influence over the social and behavioral issues in schools. The data indicate, however, that improvements in the way schools function depend upon increasing teacher control over just these issues.

None of this is meant to suggest that the implementation of such reforms will be easy. Teacher empowerment, like other forms of empowerment, does not necessarily have to be a zero-sum issue, that is, empowering teachers does not have to result in disempowering parents. But, increasing teacher control over crucial social issues is difficult and controversial. Giving teachers more control over, for example, policies and rules concerning what is to be deemed appropriate and inappropriate student behavior can involve a fundamental restructuring of the distribution and balance of control for these fundamental social issues. Such restructuring expands teachers' "parenting" control over what is best for children. Moreover, this kind of reform decreases the discretion allowed, and increases the accountability required, of both parents and students. In essence, this restructuring alters an underlying premise of public schooling -- from entitlement to privilege. Privileges fundamentally differ from entitlements in that they can be forfeited. The critical question is: how much control do we want as a society to give our teachers in regard to the socializing of our youngsters?

To illustrate the kinds of difficulties such efforts encounter, I will briefly turn to two examples of social reform in schools that touch on crucial and cherished issues. The first are the so-called "Respect Bills" -- an example of education reform initiatives that address student social and behavioral problems in schools. These are state laws requiring public school students to address teachers and other school employees with respectful terms, such as "yes, sir," "no, ma'am," "yes, Mr. Jones" or "no, Ms. Jones." According to one sponsor – a legislator in Louisiana -- the objective of this legislation was "to encourage courtesy and respect and to help people learn good habits of civility. When you practice the Golden Rule, it becomes a habit."

Respect bills were proposed in numerous states in the late 1990s, but met much criticism and (by summer 2000) were successfully enacted in only one state -- Louisiana. One criticism was that they go too far, are too rigid and undermine the role of families. Proponents countered that the objective of these laws was not to impose military values or supplant family prerogatives, but simply to reinforce basic manners. A second criticism was that respect bills do

not go far enough, are too superficial and, hence, would have little effect on school or societal problems. The response of one teacher and parent summed this up: “I’d rather have a law that gives me more power to discipline.” Proponents, typically, agreed with this criticism. They readily acknowledged the limits of their legislation. In their view ensuring basic manners is only a first step toward making schools better places for youth. This legislation did not include serious punishment for infractions, nor resources to try to resolve underlying problems, nor any increase in teacher authority.

A second example of school reform legislation that did attempt to more fully address issues of teacher control over student behavior is the “Improved Student Learning and Discipline Act” -- enacted in Georgia at about the same period as the Respect bills. In this case, the state-mandated legislation gave teachers a new power -- the ability to remove students from their classrooms for disruption, bullying, sexual harassment, verbal abuse and so on. The law replaced a structure in which principals had the ultimate authority in deciding what to do with unruly students, including the power to return such students to classrooms against the wishes of teachers. Under the new legislation, teachers have the opportunity to appeal principals’ decisions to a three-member review panel of teachers. In addition and notably, the law provided counseling, mentoring and support to both teachers and students in the event of conflicts. In contrast to the Respect Bills, the Georgian law sought to give teachers far more control over a fundamental social issue -- whether teachers should be forced to teach disruptive students.

Not surprisingly, for this same reason the law faced extensive criticism. State laws allowing schools to identify, suspend and expel problem students may conflict with federal laws guaranteeing every student a public education and federal laws restricting removal of problem children. These concerns and conflicts are understandable. School socialization is of great concern to the public and, hence, not surprisingly, these issues are subject to a high degree of centralized organizational control. The unfortunate irony is that such concern and centralized control result in such negative consequences for teachers and schools.

The Roots of School Staffing Problems – An Alternative Perspective

In this final section I offer an alternative perspective to explain school staffing problems and also the popularity of the three conventional explanations described above. From this alternative perspective, problems of teacher quality, teacher misassignment, chronic teacher turnover and highly centralized workplaces are not new issues in this occupation and can all be traced to a common root B the stature and standing of the teaching occupation.

Unlike many European and Asian nations, in this country elementary and secondary school teaching has long been largely treated as semi-skilled work since the development of public school system in the late 19th century (Etzioni 1969; Lortie 1975; Tyack 1974). From this perspective, the basis of the status of an occupation and of a type of work lies in the degree to which the work itself is perceived to be important and requiring expertise and skill. The practitioners of higher status occupations have control over an important and scarce resource, such as knowledge of the causes of and cures for life threatening disease, as in the case of the medical profession (Simpson 1985).

Analysts of work and occupations have traditionally classified teaching as a relatively complex form of work, characterized by uncertainty, intangibility and ambiguity and requiring as high a degree of initiative, thought, judgement and skill to do well as do some of the traditional professions (e.g., Bidwell 1965; Lortie 1975). For example, in a comparative study of a number of occupations, Kohn and Schooler (p. 68, 1983) concluded that secondary teaching involved greater substantive complexity than the work of accountants, salespersons, machinists, managers and officials in service industries and in the retail trade. What the work of elementary and secondary teachers lacks is not complexity, but occupational legitimacy and prestige– leading sociologists to categorize teaching as a semi-profession (Etzioni 1969; Lortie 1969; Simpson 1985). Although the work is relatively complex, the technical base of teaching does not appear to go beyond what the public thinks it knows. In other words, regardless of the

reality, the public does not view teaching as especially skilled, sophisticated, intellectually difficult or advanced work, especially in comparison to the traditional professions.

Part of this public definition and perception may be traced to an unusual aspect of teaching – it is one of the few occupations where its' clients have had extensive prior exposure to the work and its practitioners. In short, teaching is an occupation for which many non-practitioners believe they understand how it works. Another factor closely tied to occupational status is gender. The traditional professions, until recently, have been male-dominated. In contrast, predominantly female occupations, such as teaching, have always been of lower prestige and status in the US (Ingersoll 2000).

Teaching as a Semi-Profession

From this perspective, the semi-professional stature of this female-dominated occupation is a large factor behind the popularity of the three claims and issues discussed in this paper. For instance, in the case of shortages and turnover, teaching is an occupation that has historically relied on recruitment, and not retention, to solve its staffing needs and problems. The emphasis was on ease of entry rather than raising admission standards or increasing teacher salaries. Since the inception of the public school system in the late 19th century, teaching was socially defined and treated as a temporary line of work suitable for women, prior to their "real" career of child rearing (e.g., Tyack 1974; Lortie 1975). For men, teaching was socially defined as a stepping stone, prior to their "real" career in one of the male-dominated skilled blue-collar occupations or white-collar professions. Indeed, historically there was an ambivalence toward persistors in teaching, especially males -- who had to account for why they continued to be "merely" a teacher. To this day, low pre-service training standards and requirements, relatively unselective entry criteria and front-loaded salaries that pay newcomers relatively high salaries compared to veterans all tend to favor recruitment over retention. Moreover, low pay, isolated job conditions, little professional autonomy and little sense of a

career ladder all undermine longer-term commitment to teaching as a career and profession. Given these occupational characteristics, cyclic staffing problems, misdiagnosed as shortages, are to be expected.

The semi-professional status of teaching also explains the prevalence of out-of-field teaching – the second issue discussed in this paper. The comparison with traditional professions is stark. Few would require cardiologists to deliver babies, real estate lawyers to defend criminal cases, chemical engineers to design bridges, or sociology professors to teach English. This also applies for the high-skill blue-collar occupations B few, for example, would ask an electrician to solve a plumbing problem. The commonly held assumption is that such traditional male-dominated occupations and professions require a great deal of expertise and, hence, specialization is necessary. In short, for well-paid, well-respected professions and occupations it is less acceptable to lower skill standards as a means to increase the labor supply. In contrast, underlying out-of-field teaching appears to be the assumption that female-dominated, pre-collegiate school teaching requires far less skill, training, and expertise than many other occupations and professions, that specialization is assumed less necessary and, hence, it is appropriate to use teachers like interchangeable blocks.

Finally, the semi-professional status of teaching also explains the third issue discussed in this paper – the distribution of control in schools. One of the most important criteria distinguishing the degree of professionalization and the status of an occupation is the degree of power and control practitioners hold over workplace decisions (Mills 1951; Perrow 1986; Simpson 1985; Kohn and Schooler 1983; Freidson 1973, 1986). Professionalized employees usually have control and autonomy approaching that of senior management when it comes to organizational decisions surrounding their work. Academics, for example, often have equal or greater control than that of university administrators over the content of their teaching and/or research, over the hiring of new colleagues and, through the institution of peer review, over the

evaluation and promotion of members and, hence, over the ongoing content and character of the profession. Members of lower-status occupations usually have little say over their work. The SASS data show that in comparison to traditional professions, teachers have only limited authority over key workplace decisions. For example, among the key decisions that teachers have little say over are which courses they are assigned or misassigned to teach. In other words, one factor, closely tied to the centralized character of our schools is the status of teaching as a semi-profession in this country.

Many schools in the US do indeed face serious staffing problems; that is, they have difficulty ensuring that all classrooms are staffed with adequately qualified teachers. Moreover, there is no question that some teachers are poorly trained, poorly performing or inadequate for the job, in one way or another. And, it is neither convincing, nor valid, to simply pass the blame for low-quality teaching and educational failure elsewhere -- for instance onto families. Teachers are important and do have an effect on students and, hence, it is appropriate to scrutinize their training, qualifications and performance. However, solving school staffing problems will, ultimately, require addressing the underlying systemic roots of the problem. In order to improve the quality of teachers and teaching, it will be necessary to improve the quality of and respect afforded the teaching job and occupation. Piecemeal reform will not accomplish systemic change. Changes to entry standards, training, rewards, autonomy and accountability must be enacted in tandem to succeed. Increases in one must be accompanied by increases in the other. Imbalances between any two can result in problems for both the employee and for the organization. Thus, simply raising pre-service entry standards without also raising in-service rewards will not improve the quality of prospective entrants. Moreover, raising either entry standards or inservice rewards without also ensuring inservice accountability with not improve quality. Similarly, accountability and autonomy must be linked. All of these individual changes

will be necessary, but none alone will be sufficient to meet the larger system goal – ensuring a qualified teacher in every classroom.

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